The Risks of Autonomous Weapons: an Intersectional Analysis

"The risks of autonomous weapons: an intersectional analysis"
By Wanda Muñoz and Mariana Díaz
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This publication is based on two earlier documents by the same authors:
- A first paper originally printed in Spanish: "*Los riesgos de las armas autónomas: una perspectiva interseccional latinoamericana*" printed by SEHLAC in 2020, available at sehlac.org; and,
- An adaptation of the original paper which will be printed as a with the title "*Autonomous Weapons: a reproduction of systems of oppression in the military technology*" in the publication *Disability and Conflict* by the National University of Colombia (to be released in 2020).

Human Security Network in Latin America and the Caribbean - SEHLAC

SEHLAC is a network of **human rights professionals and representatives of civil society organizations**. Our mission is to work in coordination to achieve humanitarian disarmament and strengthen **International Humanitarian Law through advocacy, awareness, mobilization, research and the creation of synergies with different stakeholders in the region, and worldwide**. Based on a human security approach, we seek to strengthen our region's commitment to humanitarian disarmament and International Humanitarian Law with a **vision focused on the well-being of people**, respecting and promoting, in particular, the human rights of **victims and survivors of armed violence in the diversity of their conditions**.

Campaign to Stop Killer Robots

The **Campaign to Stop Killer Robots**, formed in 2012, is a coalition of non-governmental organizations working to ban **fully autonomous weapons** and retain **human control over the use of force**. In June 2020, the Campaign had 160 members in 66 countries. The Campaign to Stop Killer Robots was awarded the Ypres Peace Prize in 2020 by the City Council of Ypres, Belgium.

> The Campaign to Stop Killer Robots calls on States to
>
> **ban fully autonomous weapons**
>
> in order to retain **meaningful human control** over the **use of force**.
>
> This can be achieved by a **new international treaty**.

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Introduction

Autonomous weapons are those that would select and engage targets without meaningful human control. In other words, they would choose whether a person lives or dies. Even though these weapons do not exist yet, countries like the United States, France, Israel and South Korea have developed precursors to these weapons that point to where the technological and military development of these weapons is heading.[1]

How would autonomous weapons work?

According to *Article 36*, autonomous weapons would work as follows: robot sensors would generate data based on the surrounding environment. The robot would then perform an analysis to determine what actions to take based on the data obtained by the sensors. Finally, the robot would apply force (fire or launch a missile, for example) if the analysis concludes that certain pre-programmed conditions have been met. All this would occur without meaningful human control.

Why is the development of these weapons worrying?

The development of these weapons is worrying, since it would undoubtedly entail greater risks for civilians. No robot —even using artificial intelligence— would be capable of analyzing the set of highly complex contextual elements necessary to comply with norms and principles of International Humanitarian Law and Human

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[1] PAX (2019). *Killer Robots: What are They and What are the Concerns?* Retrieved from
https://www.stopkillerrobots.org/recommended-reading/

Rights, especially with a view to protecting civilians and civilian property in situations of conflict.

Indeed, it is impossible to program a machine with principles of International Humanitarian Law, such as those of humanity, military necessity and proportionality, to list just a few. If autonomous weapons were used, civilians would be at greater risk of harm or even death as a result of actions determined by a robot that lacks the capacity to analyze alternatives, to understand what it means to take a human life or to express compassion. Moreover, there is the problem of the opacity of artificial intelligence technology, which would make it difficult —and in most cases, impossible— to understand why the robot executed one action instead of another, making it difficult or impossible to assign accountability and thus obtain justice for the victims.

Beyond the challenges of technology, our societies must prevent the development of these weapons since, independently of technological advances, it is unacceptable from a deontological ethical perspective that a robot should make life and death decisions, even with respect to combatants. This goes against human dignity and the right to life as recognized by the Universal Declaration of Human Rights, among other frameworks.

This is why there are ongoing international discussions in Geneva on the issue of lethal autonomous weapons within the framework of the Convention on Certain Conventional Weapons. Although, by December 2020, thirty countries have called for negotiations on an international treaty prohibiting these weapons, other countries are hindering progress and seeking non-binding "solutions" such as the adoption of guidelines or good practices that will be no more than good intentions.

This is not enough to ensure that our human rights are protected: autonomous weapons must be prohibited by international treaty and national legislation in order to guarantee that humans will always control and be accountable for this lethal force.

Who is against autonomous weapons?

The process of mobilization to prohibit autonomous weapons is increasingly gathering momentum. In addition to civil society as represented in the Campaign to Stop Killer Robots, the European Parliament, Nobel Peace Prize laureates, and thousands of experts in artificial intelligence have called for such a prohibition. In 2019, the United Nations General Assembly's Alliance for Multilateralism identified lethal autonomous weapons as one of the "politically relevant" issues that require an urgent response.[2]

The United Nations Secretary General has also expressed his concern: he calls these weapons politically unacceptable and morally repugnant and says that they should be prohibited.[3] Employees of technology companies have also gotten involved in the process of the non-militarization of certain technologies: Google staff, for example, succeeded in having a contract with the Pentagon's *Maven* project cancelled because it militarized advances in artificial intelligence.[4]

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[2] Alliance for Multilateralism (2019). *Declaration on Lethal Autonomous Weapons Systems*. Retrieved from https://multilateralism.org/wp-content/uploads/2020/04/declaration-on-lethal-autonomous-weapons-systems-laws.pdf
[3] Bugge, A (2018, November 5). *U.N.'s Guterres urges ban on autonomous weapons*. Retrieved from https://www.reuters.com/article/us-portugal-websummit-un-idUSKCN1NA2HG
[4] Harwell, D. (June 1, 2018). *Google to drop Pentagon AI contract after employee objections to the 'business of war'*. Retrieved from https://www.washingtonpost.com/news/the-switch/wp/2018/06/01/google-to-drop-pentagon-ai-contract-after-employees-called-it-the-business-of-war/

The movement to ban autonomous weapons is gathering momentum. In addition to the civil society organized in the *Campaign to Stop Killer Robots*, the European Parliament, Nobel Peace Laureates, the Federal Association of German Industry, and thousands of experts in artificial intelligence have called for this ban. In 2019, the United Nations General Assembly, in the *Alliance for Multilateralism*, identified autonomous lethal weapons as one of the six "politically relevant" issues that require an urgent response. The United Nations Secretary-General has also expressed his concern: he calls these weapons "politically unacceptable, morally repugnant" and declares that they should be banned.[1] Google personnel, for example, managed to get a Maven project contract with the Pentagon canceled because it militarized their advances in artificial intelligence.[2]

The current health emergency has altered international processes, including humanitarian disarmament. However, the diplomatic corps, academia and civil society committed to the issue continue to implement initiatives that maintain the momentum and give continuity to the dialogue to achieve the ban on autonomous weapons.

Why did we prepare this publication?

The objective of this document is to provide elements to reflect on the disproportionate impact that autonomous weapons would have in Latin America and similar contexts; in particular, on certain groups of the population whose human rights have historically been violated.

The Latin America and the Caribbean region has great cultural diversity. Its structural inequalities - according to the UN - cannot be understood by leaving out the colonization

process and, from there, the dominant hegemonies, the processes of subordination, under-representation and lack of recognition and access to rights by large groups of our population (indigenous and Afro-descendant, among others). Colonialism also institutionalized the patriarchal system, the masculinization of heritage, the legitimation of violence and the subordination of women in society, phenomena that exist to date in our region.

An intersectional analysis allows us to analyze these various systems of oppression in Latin America and the Caribbean - racism, classism, sexism, ableism, among others - and thus reflect, in an informed way, on the impact that the development of autonomous weapons would have on our society, particularly among those that have faced structural discrimination.

This paper was published at the same time as another SEHLAC document entitled "*Autonomous Weapons: It's a matter of human rights, not technology... and this is what you need to know"*. The objective of that document is to contribute to improving the understanding of certain technology terms and how they are related to autonomous weapons, in order to have a common language when dialoguing and debating on the subject.

We hope that both documents will contribute to fostering dialogue between various stakeholders in the region, and to strengthening the arguments in favor of a ban on autonomous weapons.

1.Why should autonomous weapons be banned?

Autonomous weapons can select and attack targets without meaningful human control. That is to say, they would make life and death decisions. This is problematic from a number of perspectives, including the following:

1. **Ethical considerations.** As a principle of humanity, we must not allow autonomous weapons to take actions which have life or death consequences without a person being responsible for that decision. The fact that an autonomous weapon can make life or death decisions violates human dignity.

2. **Human rights considerations.** Everyone has the right to life. It is unacceptable for a robot to choose, based on sensors and data, whether a person is a legitimate target and should be attacked or not; human life should never be in the hands of a robot. Furthermore, the risk that autonomous weapons reflect biases and therefore have a disproportionate impact on certain populations because of gender, skin color, physical characteristics or disability (and other characteristics) is very high, as has been observed in different facial recognition studies.[5] The Massachusetts Institute of Technology (MIT) Media Lab, for example, recently carried out a study on digital facial recognition systems based on machine learning techniques, using the projects of recognized companies such as IBM and Microsoft. It found that facial recognition error for light-skinned men was

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[5] See, for example: Washington Post (2019). *Federal study confirms racial bias of many facial-recognition systems, casts doubt on their expanding use*. Accessed 05/13/2019.
https://www.washingtonpost.com/technology/2019/12/19/federal-study-confirms-racial-bias-many-facial-recognition-systems-casts-doubt-their-expanding-use/

1%; for dark-skinned men it was 19%; and for dark-skinned women it was 35%.[6] In other words, if these tools are used as part of an autonomous weapon, dark-skinned people and, in particular, dark-skinned women, would face a greater risk of error than light-skinned men.

3. **Considerations of the Principles of International Humanitarian Law**: If autonomous weapons were used, there would be a very high probability of violation of the following principles, which represent the minimum humanitarian principles applicable at all times, and in all places and circumstances:
    a. **Principle of humane treatment.** Persons taking no active part in the hostilities, including members of armed forces who have laid down their arms and those placed *hors de combat*, shall be treated humanely.
    b. **Principle of military necessity.** Disproportionate harm should not be inflicted on the adversary, defined as more harm than is strictly necessary to defeat or cause the adversary to surrender.
    c. **Principle of distinction.** The parties to the conflict must at all times distinguish between the civilian population and combatants.
    d. **Proportionality principle.** This prohibits attacks which are expected to cause deaths and injury to civilians, or damage to civilian objects, which would be excessive in relation to the anticipated military advantage.

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[6] LOR, Steve. *Facial Recognition Works, if you are a white guy*. Published in The New York Times on 2/9/2018. Accessed at https://www.nytimes.com/2018/02/09/technology/facial-recognition-race-artificial-intelligence.html

The more autonomy there is in the weapon, the easier it will be to reach a point where people are so removed in time and space from target selection and attack that human decision-making on the use of force is replaced by autonomous processes.

4. **Security considerations.** Some are given below:
   a. Some leaders will be more inclined to start wars if they believe that there is less risk of loss of life among their own armed forces, even at the cost of greater loss of civilian life in the country under attack. This is unacceptable: no life has more value than another. Furthermore, this scenario could more easily destabilize international geopolitics.
   b. Autonomous weapons could be used in international armed conflicts, but also for surveillance, and police and national security work. In none of these contexts should weapons be used without meaningful human control.
   c. Once this technology exists, it could be replicated, used and expanded relatively easily by non-state and illegal armed groups.

2. Why is the debate of Autonomous Weapons relevant for Latin America and other countries in the Global South?

Most of the countries in our region have historically been committed to International Humanitarian Law and the processes of humanitarian disarmament. Our countries have contributed to, and in some cases led, negotiations and the

adoption of the Convention on Cluster Munitions and the Treaty on the Prohibition of Nuclear Weapons, among other instruments.

In our region, artificial intelligence is focused on industrial processes, finance, health, communications and education, rather than military development. Nonetheless, the production of lethal autonomous weapons in other countries could have a serious impact. The following are some scenarios, among others:

Firstly, if these weapons are developed in other countries, they can be acquired or replicated at the national level for use in police work and national security and surveillance, thereby involving probable violations of human rights. Facial recognition technologies are already being used targeting feminist demonstrations, for instance.[7]

Secondly, the results would be disastrous if these weapons were to fall into the hands of non-state or illegal armed groups. In 2019, Mexican Foreign Secretary Marcelo Ebrard stated that 2.2% of the weapons sold in the United States ended up in Mexico.[8] If these autonomous weapons are developed in the United States, it may not be long before they illegally enter not only Mexico, but other countries in Latin America.

Thirdly, autonomous weapons could also be used by patrols aimed at reducing immigration, thereby putting migrants, one of the most abused groups in Latin

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[7] Pérez, F. y Robles, P. (2020). *El tortuoso camino de Coahuila al reconocimiento facial.* https://politica.expansion.mx/estados/2020/11/11/vigilancia-biometrica-el-tortuoso-camino-de-coahuila-al-reconocimiento-facial

[8] Office of the President of Mexico (December 26, 2019). *Versión estenográfica de la conferencia de prensa matutina.* Retrieved from https://www.gob.mx/presidencia/articulos/version-estenografica-de-la-conferencia-de-prensa-matutina-jueves-26-de-diciembre-2019

America, at greater risk. In point of fact, efforts have previously been made to prohibit other unacceptable weapons, such as anti-personnel mines, on the border between the United States and Mexico.[9] Furthermore, the use of drones with facial recognition technology is being used to patrol the northern border; incursions into Mexican territory have even been reported.[10] The consequences of the use of autonomous weapons would be even more serious.

The region of Latin America and the Caribbean has great cultural diversity, but significant structural inequality. An intersectional and gender analysis confirms that the various systems of oppression still existing in Latin America —racism, classism, machismo, ableism— will specifically impact the most affected populations, which have suffered systemic discrimination that still permeates our society.

3. Why would Autonomous Weapons have a Disproportionate Impact on the Marginalized Populations?

Autonomous weapons would probably integrate facial recognition tools and other technology for identifying targets with certain profiles, despite the fact that these tools have been shown time and time again to be biased. The biases can emerge as a consequence of an engineer's vision of society and the rules that apply in a certain environment. These biases can result in discrimination or injustice.[11]

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[9] Mullins, T. (June 15, 2010). *GOP nominee proposes landmines for Mexico Border. CBS news*. Retrieved from https://www.cbsnews.com/news/gop-nominee-proposes-landmines-for-mexico-border/
[10] Fussell, S. (October 11, 2019). *The endless aerial surveillance of the border*. The Atlantic. Retrieved from https://www.theatlantic.com/technology/archive/2019/10/increase-drones-used-border-surveillance/599077/
[11] Independent High-Level Expert Group on Artificial Intelligence. Created by the European Commission in June of 2018 (2019). *Ethics Guidelines for Trustworthy AI.* Adapted. Retrieved from https://ec.europa.eu/commission/presscorner/detail/es/IP_19_1893

The *Massachusetts Institute of Technology* (MIT) Media Laboratory, for example, recently carried out a study of digital facial recognition systems based on automatic learning techniques. The study shows that the error rate of facial recognition is 1% in light-skinned men; 19% in dark-skinned men; and 35% in dark-skinned women.[12] In other words, if this type of tool were built into an autonomous weapon, dark-skinned persons —particularly dark-skinned women— would be subject to a higher risk of error than light-skinned men. Therefore, we can say that facial recognition has an androcentric and racist bias that can replicate and amplify intersectional discrimination: gender and skin color, in this example. Additionally, the biases can easily be amplified through computer learning and hacking, with disastrous effects.

Let us also examine what happened with the Tay chatbot. Developed in 2016, it was programmed to use computer learning to hold increasingly complex conversations on social media. In just a few hours, this chatbot was spouting large amounts of racist, misogynist and anti-Semitic language. In a few hours, it "learned" from a small number of people to spread discriminatory language on a large scale.[13] This and other examples show the risks of applying computer learning to social issues without human control, which could have catastrophic consequences in the context of war.

Furthermore, it would be very likely that autonomous weapons would also have a discriminatory bias against people with physical, sensorial, psychosocial,

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[12] Lor, S. (February 9, 2018). *Facial Recognition is Accurate, if You're a White Guy.* The New York Times. Retrieved from https://www.nytimes.com/2018/02/09/technology/facial-recognition-race-artificial-intelligence.html
[13] Schwartz, O. (2019). *In 2016, Microsoft's Racist Chatbot Revealed the Dangers of Online Conversation.* Spectrum. Retrieved from https://spectrum.ieee.org/tech-talk/artificial-intelligence/machine-learning/in-2016-microsofts-racist-chatbot-revealed-the-dangers-of-online-conversation

intellectual or multiple disabilities, and against people in the LGBTI+ community, whose appearance, functioning, behavior, and diversity of conditions do not correspond to the norms taken into account by the people who develop technology and autonomous weapons. It is likewise important to emphasize that these weapons could have a disproportionate effect on children, whose diversity and characteristics might not be recognized by autonomous weapons, and who could suffer specific psychological impacts if their communities were attacked by autonomous robots.

What is more, there is evidence that the victims of war are still largely civilians. As noted by various sources, it is estimated that for each combatant in Iraq, five to ten civilians die, and the difference is even greater in Democratic Republic of Congo, Northern Uganda, and Darfur.[14] In Colombia, the vast majority of conflict deaths from 1958 to 2018 were civilians: 215,005 civilians died, as opposed to 46,813 combatants.[15] In other words, 82% of deaths during this period were civilians.

Civilians in areas where autonomous weapons would be used would likely be even more vulnerable than they already are: their lives would depend on decisions made by a robot. This situation is an assault on human dignity and demanding accountability would be even more complicated owing to the difficulty in assigning responsibility to military command for an autonomous weapon that makes its own decisions.

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[14] Roberts, A. (2010). *Lives and Statistics: Are 90% of War Victims Civilians? Proof*. Retrieved from https://weblearn.ox.ac.uk/access/content/user/1044/survival_jun-jul_2010_-_ar_on_lives___statistics_-_non-printable.pdf
[15] Romero. C. (2018). *262.197 muertos dejó el conflicto armado.* Center for Historical Memory. Retrieved from https://centrodememoriahistorica.gov.co/262-197-muertos-dejo-el-conflicto-armado/

4. What impact would Autonomous Weapons have on Indigenous Groups and Afro-descendant populations?

The majority of Afro-descendant peoples in Latin America continue to face many obstacles to fully exercising their rights. These obstacles, which are both a cause and an effect of their marginalization, and are based on racism, impact all aspects of their lives —social, educational and economic, among others—, owing to a long history of discrimination and racism.[16] Looking at violence in Brazil, for example, we see that 75.5 % of homicide victims in 2017 were Afro-descendants.[17]

Furthermore, the nations of Latin America still owe a historic debt to indigenous and native peoples, since up to now, they have not really had the chance to fully exercise their rights. This is particularly true with respect to the right to self-determination, which allows indigenous peoples to make decisions and institute practices that align with their cosmovision, territory, lands, natural resources, sociopolitical organization, administration of justice, education, languages, health, medicine and culture.[18]

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[16] World Bank (2018). *Afrodescendientes en América Latina: un marco hacia la inclusión*. Retrieved from https://openknowledge.worldbank.org/bitstream/handle/10986/30201/129298-7-8-2018-17-30-51-AfrodescendientesenLatinoamerica.pdf?sequence=5&isAllowed=y
[17] Institute for Applied Economic Research, Brazilian Forum of Public Safety (2019). *Atlas da Violência 2019*. Retrieved from https://www.ipea.gov.br/portal/index.php?option=com_content&view=article&id=34784&Itemid=432
[18] Economic Commission for Latin America and the Caribbean (2013). *Los pueblos indígenas en América Latina*. Retrieved from https://repositorio.cepal.org/bitstream/handle/11362/37050/4/S1420783_es.pdf

Indigenous peoples continue to face structural barriers that limit their full social and economic inclusion: while indigenous peoples represent 8% of the region's population, they are 14% of the poor and 17% of the extremely poor.[19]

In our region there are 1223 territorial conflicts, in which "*the repression and criminalization of indigenous peoples who are defending their rights has led to the assassination of hundreds of their leaders. Latin America demands an end to the culture of privilege that normalizes inequality and discrimination, and urges the building of pluricultural societies*".[20] The same source notes that at least four indigenous leaders are murdered every month in our region and that just between 2015 and the first half of 2019, 232 defenders of indigenous lands were murdered.

Given this scenario, autonomous weapons would constitute an additional risk for indigenous and Afro-descendant populations owing to characteristics and inequalities that create spaces and contexts distinct from those of the rest of the population. Indigenous peoples' cosmovisions and relationships with their land, for example, are impossible to understand and analyze algorithmically. Lacking an analysis and understanding of the environment, these weapons would potentially have a disproportionate impact on indigenous and Afro-descendant populations, which would then have more difficulty than the rest of the population in accessing health, social, police and legal services owing to the structural deficiencies that persist in Latin America.

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[19] World Bank (2017). *Indigenous Latin America in the Twenty-First Century*. Retrieved from https://www.bancomundial.org/es/region/lac/brief/indigenous-latin-america-in-the-twenty-first-century-brief-report-page
[20] UN News (June 12, 2020). *Four Indigenous Leaders Murdered Every Month in Latin America*, (p. 1). Retrieved from https://news.un.org/es/story/2020/06/1475932

5.What does an Intersectional Analysis of Autonomous Weapons tell us about the potential impact of these weapons on different groups?

We have mentioned some of the reasons why certain population groups would be disproportionately affected by autonomous weapons, which create a greater and more specific risk, depending on certain physical and behavioral characteristics or relationships with the environment.

An intersectional analysis makes it possible to better understand that certain populations or persons would be even more affected and subject to greater risk if they have more than one factor that has historically resulted in greater discrimination. For example, facial recognition has a much smaller margin of error in recognizing light-skinned men than in recognizing dark-skinned men. However, the margin of error is even larger for dark-skinned women: racism and gender inequality "intersect" and are reflected in these facial recognition technologies.

Another example is that a large number of the people who die at the hands of the police in the United States are dark-skinned men with some kind of disability. According to Abrams (2020), there is no reliable national database that shows how many people with disabilities are shot by the police every year, or how many are experiencing a mental health episode when they are shot. But studies show that it is a significant number, probably from one third to one half of all those who

die at the hands of the police.[21] In this case, racism intersects with ableism to create discrimination and an even greater risk for persons with both characteristics: this is what is known as intersectional discrimination. In the case of autonomous weapons, the consequences of this discrimination would be terrible, literally a matter of life and death.

According to Ramsay-Jones (2020)[22], there is more and more evidence that racism operates at every level of the process of design, production, implementation, distribution, and regulation of artificial intelligence. Using autonomous weapons would amplify inequalities of power based on racial hierarchies, since the biases in artificial intelligence would not only reproduce inequalities, but would also replicate and amplify them.

The serious consequences of this problem have been recognized by large technology companies in the shadow of the civil society protests against the death of George Floyd at the hands of the police in the United States. For instance, in June of 2020, Amazon and IBM imposed a moratorium on the use of their facial recognition programs by police forces in the United States, recognizing their unjust biases with regard to dark-skinned people.[23] If it is unacceptable to use this technology for police work in facial recognition, it is inconceivable that it be considered for use in autonomous weapons.

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[21] Abrams, A. (June 25, 2020). *Black, Disabled and at Risk: The Overlooked Problem of Police Violence Against Americans with Disabilities.* Retrieved from https://time.com/5857438/police-violence-black-disabled/
[22] Ramsay-Jones, H. (2020). *Intersectionality and Racism.* Soka Gakkai International.
[23] Weise, K. (June 10, 2020). *Amazon Pauses Police Use of Its Facial Recognition Software.* Retrieved from https://www.nytimes.com/2020/06/10/technology/amazon-facial-recognition-backlash.html

6.Autonomous Weapons: what would they mean for Persons with Disabilities in situations of Conflict?

Article 11 of the Convention on the Rights of Persons with Disabilities includes the commitment of States Parties to adopt "*all necessary measures to ensure the protection and safety of persons with disabilities in situations of risk, including situations of armed conflict.*[24]

Nevertheless, several organizations have documented the obstacles faced by persons with disabilities in accessing protection in situations of conflict. According to the United Nations Mine Action Service (2020)[25], the obstacles faced by persons with disabilities include physical barriers that impede escape from violence and violence and sexual abuse during and after the conflicts. To this, we can add limited access to public services in general in the areas of nutrition, health, social services and psychosocial support, since these services are still generally developed without taking into account directives on physical, attitudinal and communicative accessibility. Furthermore, rehabilitation services in situations of conflict are as yet non-existent, insufficient, or geographically or economically inaccessible.

What do persons with disabilities think of their circumstances? In a study carried out by Handicap International (2015), persons with disabilities living in situations of conflict in various regions of the world reported the following negative impacts of the conflict on their lives: 54% suffered direct impacts that caused new

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[24] International Convention on the Rights of Persons with Disabilities (2006).
[25] United Nations Mine Action Service (2020). *Persons with disabilities in armed conflict*. Retrieved from https://unmas.org/en/persons-with-disabilities-armed-conflict

deficiencies in some cases; 27% suffered sexual, physical or psychological abuse; 31% noted that they were more dependent on others owing to reduced accessibility in the environment; and 21% experienced a reduction or loss of access to medical treatment, among other negative consequences. [26]

It is important to recognize that the world is designed from an ableist perspective, understood as "*a value system that considers certain typical characteristics of body and mind as essential for living a life of value. Catering to limited standards of appearance, functioning and behavior, ableist thinking assumes that the experience of disability is a misfortune that entails suffering and disadvantages and, invariably, reduces the value of human life".[27]* This clearly reflects a mechanism of oppression that focuses on the value of persons in the misnamed "normality," which is a social construct, as noted by Foucault.[28]

The foregoing implies the collective construction of a single model of a person with certain bodily characteristics: they communicate, react, act, move, understand and process the world in a certain way. Everything is conceived and designed using a template of a "standard" person, which fails to recognize human diversity.

The examples of biases ingrained in technology with respect to gender and skin color lead one to expect that these same biases would exist to a greater or lesser degree against persons with disabilities. The ableist vision, which is still the

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[26] Handicap International (2015). *Disability in Humanitarian Context. Views from affected people and practitioners*. Retrieved from https://www.un.org/disabilities/documents/WHS/Disability-in-humanitarian-contexts-HI.pdf
[27] Special Rapporteur on the Rights of Persons with Disabilities (2020). *The Impact of Ableism in Medical and Scientific Practice*. A/HRC/43/41. United Nations. Retrieved from https://undocs.org/es/A/HRC/43/41
[28] Vázquez Rocca, A. (2012). *Foucault, Los anormales una genealogía de lo monstruoso, apuntes para una historiografía de la locura*. In *Nómadas. Revista Crítica de Ciencias Sociales y Jurídicas*. Retrieved from https://revistas.ucm.es/index.php/NOMA/article/view/40745/39064

majority viewpoint, would undoubtedly be reflected in the biases of the technology that could be used for autonomous weapons.

To mention a few examples, autonomous weapons would not be likely to take into account the following:

- A person can move in a wheelchair, with a cane or with a walker or crutches, which means that speed, height and possible reactions would be different from those of the rest of the population.
- Not everyone communicates verbally; an audible order or warning would make it difficult for someone in the deaf or hypoacoustic community to understand the message.
- Persons with visual disabilities would not have access to visual instructions and would encounter obstacles to moving, hiding or even saving their own life in an attack.
- Not everyone perceives and understands the world in the same way. A person with intellectual disabilities might find it difficult to understand or follow a certain type of order.
- Persons with psychosocial disabilities might behave in an "unexpected" manner that autonomous weapons could not process or might interpret as a risk, leading them to identify these persons as attack targets.

The previous picture becomes even more complex if we take into account the problems faced by persons with multiple disabilities.

Furthermore, it is important to consider the potential impact of autonomous weapons on the mental health of the population attacked by these weapons;

people would see their bodily integrity or their very lives threatened by robots that minimize the dignity of human life.

In addition to the aforementioned potential impact, this population group would be disproportionately affected owing to the physical, communicative, attitudinal and technological barriers created by society for persons with disabilities throughout history, putting this population in a particular condition of vulnerability. Among other factors that lead to such outcomes, there are no obstacle-free environments that allow persons with disabilities to rapidly move to safe sites, nor are there accessible or alternative mechanisms for requesting help and communicating.

Likewise, an intersectional approach would perforce consider the specific effect of autonomous weapons with regard to women, adolescents and girls in terms of disability; given the interaction of two systems of oppression (ableism and patriarchy), these groups would suffer greater negative consequences and would face more barriers in the aforementioned impacts. Women with disabilities would face greater obstacles than women without disabilities or men with disabilities in accessing education and job opportunities, for example. This same intersectional approach allows us to acknowledge and underscore that Afro-descendant persons with disabilities would face even greater risks (see, for example, Abrams, 2020).

In response to the challenges faced by persons with disabilities in situations of conflict, the United Nations Security Council adopted Resolution 2475 (2019)[29], which expresses its "*serious concern regarding the disproportionate impact that armed conflict has on persons with disabilities, including abandonment, violence*

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[29] United Nations Security Council. Resolution 2475 (2019).

and lack of access to basic services" and underlines "*the need for States to end impunity for criminal acts against civilians, including those with disabilities, and to ensure that such persons have access to justice and effective remedies and, as appropriate, reparation."*

Instead of moving toward turning these commitments into reality, autonomous weapons would magnify the disproportionate impact of conflicts on this population and the impunity that States have undertaken to contest.

7.Would Autonomous Weapons be an aggravating factor for two of the region's greatest challenges: Gender Inequality and Violence Against Girls and Women?

A gender perspective analysis of autonomous weapons allows us to recognize that, in addition to the technical problems of bias, autonomous weapons exacerbate certain factors that promote gender inequality and more broadly, inequality and the marginalization of groups that have seen their rights violated to a greater degree than the majority of the population.

As indicated by Acheson (2019), the "need" to develop more weapons — particularly weapons that dehumanize acts of violence and distance the perpetrator from the victim— is based on, and contributes to the perpetration of, a toxic masculinity that permeates many aspects of daily life and institutions in our region; toxic masculinity sees violence as a legitimate way of demonstrating

strength, bravery and protection and men feel obliged to follow violent norms to show that they are "real men."[30]

Toxic masculinity damages the whole of society, since women, girls, boys, adolescents and older adults are victims of different kinds of violence linked to this type of masculinity. Men are in large part the perpetrators, but this concept also harms the men themselves, since they take unnecessary risks and are —in general— the majority of victims of armed violence. In Rio de Janeiro, for example, young men are 24 times more likely to die from armed violence than are women, while men between the ages of 15 and 29 are twice as likely to die from armed violence than the rest of the population. Violence impacts men and women differently.[31]

Moreover, it has been widely shown that easier access to weapons results in more violence against girls and women. Given that in general men are the ones with the weapons, the balance of power between men and women would be further distorted if autonomous weapons existed. While it can be argued that autonomous weapons would be used by the military, history has shown that once any weapon is developed, it readily falls into the hands of non-state or illegal armed groups, mainly led by men; it can also be easily duplicated by civilians.

Civilian possession of autonomous weapons could increase gender-based violence and men's control over women, since men possess more weapons than women. One clear example shows us that in Mexico, between 2007 and 2018, the number

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[30] Acheson, R (2019). *Gender and Bias. What does gender have to do with killer robots*? In *Stop Killer Robots Campaigners Kit.* 2019. Retrieved from https://www.stopkillerrobots.org/wp-content/uploads/2019/04/Campaigners-Kit-FINAL_EN.pdf
[31] Geneva Declaration on Armed Violence and Development (2008). *Global Burden of Armed Violence.* Retrieved from http://www.genevadeclaration.org/measurability/global-burden-of-armed-violence.html

of women murdered at home by firearms increased 200%, while the number of women murdered by firearms in public increased 500%.[32] In the context of the violence against girls and women that prevails in Latin America, autonomous weapons would be yet another facilitator in perpetrating this gender-based violence and its impunity, especially in public, where violence has increased in recent years. Additionally, contexts of militarization are also clearly correlated with an increase in gender-based violence[33] that could be even more serious should autonomous weapons be used.

Moreover, the people employed by the industry that produces and develops artificial intelligence do not represent the diversity of the world population. Only 18% of the participants in the most important conferences on artificial intelligence are women; 20% are professors, and 15% and 10% are researchers at *Facebook* and *Google,* respectively. The biases of the creators have had the effect of devaluing women's life experiences, thus perpetrating discrimination in access to employment and reinforcing racist police practices, among others. Women's experiences and priorities are not well reflected in these industries.

From the perspective of an ecological approach to violence that takes into account the factors that facilitate violence at different levels, it is essential to understand that violence against girls and women takes place in a context of unequal relationships of access to power, resources and services, and one in which there are differences in autonomy and empowerment.[34] To take an example: in the sentence in the case González et al. ("Campo Algodonero") *vs.* México

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[32] Vela, E. (2020). *Seis de las diez*. Retrieved from https://www.nexos.com.mx/?p=47494
[33] Atuesta, L. and Vela, E, (2020) *Las dos guerras*. Retrieved from http://www.intersecta.org/lasdosguerras/
[34] Segato, R. (2014). *Las nuevas formas de la guerra y el cuerpo de las mujeres*. Retrieved from https://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102-69922014000200003

(2009)[35], the Inter-American Court of Human Rights wrote that many cases of gender violence occur in a context of systemic discrimination against women, where gender violence is not a matter of occasional incidents, but rather a structural issue and a social and cultural phenomenon rooted in a culture of violence and gender-based discrimination.[36]

Violence against girls and women is also magnified in situations of impunity, exacerbated violence, militarization, and readily available weapons. According to Segato R. (2014), countries with a high level of past or present internal conflict show an increase in lethal violence against women; these scenarios branch out in Latin America with different actors and results: organized crime, non-State armed groups, gangs, violence against activists, and police repression, for example. [37]

8.What impact could Autonomous Weapons have an impact among the LGBTI+ community?

Still today, persons that identify as LGBTI+ in Latin America and the Caribbean deal with the constant challenge of two or more systems of oppression that are systematically replicated through social norms, which are reflected in laws and public policies that restrict the exercise of rights for reasons of both sexual orientation and gender identity. Even though this has not been studied as much, it is highly probable that there are obvious biases with respect to skin color. To put it another way, the systemic discrimination faced by the LBGTI+ community would be replicated and amplified in the data and learning used by autonomous

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[35] Corte Interamericana de Derechos Humanos caso González y otras ("campo algodonero") vs. México (2009). Retrieved from https://www.corteidh.or.cr/docs/casos/articulos/seriec_205_esp.pdf
[36] Inter-American Court of Human Rights (2017). *Cuadernillo de Jurisprudencia de la Corte Interamericana de Derechos Humanos No. 4: Género*. Retrieved from https://oig.cepal.org/sites/default/files/cuadernillojurisprudenciacidh.pdf
[37] Segato, R. Ibid

weapons. It is sufficient to note that, while there is some data to show that both women and dark-skinned people are a minority of employees at technology companies, there is no data on how many transgender persons or other minorities work at these companies; they are likely to be underrepresented.

Most people grow up in societies that normalize and replicate both heteronormativity and cisnormativity. Therefore, the prejudices and stereotypes held by people would be reflected in the technologies used in autonomous weapons, which would likely have disproportionate effects on that sector of the population.

Let us imagine, for example, how difficult it would be for such a weapon to be accurate if the design used a certain stereotyped image of how a man or woman "should" look (height, build, hair length, features), dress, behave, speak (tone of the voice) or react (aggressive or passive). People who do not "fit" the heteronormative and cisnormative stereotypes would face yet greater risks from the use of autonomous weapons.

The *Center for Feminist Foreign Policy* defines a feminist approach to foreign relations as "a powerful lens through which we can interrogate the hierarchical global systems of power that have left millions of people in a perpetual state of vulnerability".[38]

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[38] Center for Feminist Foreign Policy. *The buzz around Feminist Foreign Policy is growing, but what does it mean, really?* Retrieved from https://centreforfeministforeignpolicy.org/feminist-foreign-policy

If we approach the issue of autonomous weapons from a feminist policy perspective, we should ask ourselves whether the development of autonomous weapons benefits disadvantaged populations or not. The obvious answer is 'no.'

Looking at the matter at both the level of geopolitics and certain population groups, who would benefit and who would be harmed by the use of autonomous weapons? Would existing systems of oppression be questioned or reinforced?

Conclusions

Throughout this paper, we have sought to show that autonomous weapons would have a disproportionate impact on different sectors of the population owing to the fact that these weapons are conceived, designed, programmed, and deployed in ways that replicate the prejudices and stereotypes found in society. These are still normalized and imperceptible owing to existing systems of oppression: patriarchy, racism and ableism.

In addition to the disproportionate effects that autonomous weapons would inflict on specific population groups, we must ask ourselves what the development of autonomous weapons says about our vision of society. In 2020, we are facing one of humanity's most serious health emergencies and economic crises.

It is imperative that we ask ourselves:
- Is it necessary for governments to continue investing billions of dollars in developing new types of weapons or would it be better to invest in education, health and social protection?

- Instead of squandering research on the development of autonomous weapons, would it not be better to invest in research that fosters the use of technology and artificial intelligence to prevent pandemics, or in other uses that advance the cause of human rights instead of undermining it?
- Who benefits from the development of autonomous weapons and who is harmed by them?
- Does the development of autonomous weapons bring us closer to a more just and peaceful world, and contribute to achieving the 2030 Agenda and the Sustainable Development Goals? Or, are these weapons yet another obstacle?

> Autonomous weapons would be one more factor of discrimination and violence in a region where we need, demand and work toward equality, peace and stability.

Fortunately, the development of autonomous weapons is not inevitable. We need an international treaty and national legislation that retain significant human control over the use of force and that prohibit autonomous weapons. Impeding progress in international level discussions under the pretext of the health emergency is not neutral: it benefits those who are seeking to develop autonomous weapons.

Countries like Mexico, Chile, Brazil and Costa Rica are deeply involved in the process: we need other countries in the region to whole-heartedly join this effort to ensure that there will never be weapons that take it upon themselves to decide whether a human being lives or dies.

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SEHLAC is a network of human rights professionals and representatives of civil society organizations. Our mission is to work in coordination to achieve humanitarian disarmament and strengthen International Humanitarian Law through advocacy, awareness, mobilization, research and the creation of synergies with different stakeholders in the region, and globally.

Based on a human security approach, we seek to strengthen our region's commitment to humanitarian disarmament and International Humanitarian Law with a vision focused on the well-being of people, respecting and promoting, in particular, the human rights of victims, including survivors, of armed violence; in the diversity of their conditions.

SEHLAC is a member of the Campaign to Stop Killer Robots, a coalition of non-governmental organizations that works to ban fully autonomous weapons and maintain human control over the use of force. The Campaign had 160 members in 66 countries.

Autonomous weapons would select and engage targets without meaningful human control: this is a violation of human dignity.
Allowing them to develop would mean **strengthening the use of force** and subjugation as legitimate methods of deterrence, rather than seeking to strengthen dialogue and negotiation.
It would mean **accepting a disproportionate impact** on the groups that have suffered from historical marginalization in our region.
It would mean **creating one more risk factor for discrimination and violence** in a region where citizens demand, today more than ever, investment in health, education and social protection.
We do not need other types of weapons.
We need, we demand, equality, peace and stability.

Autonomous weapons are not inevitable. Let us prevent their development through an international treaty and national legislations that maintain meaningful human control over the use of force and ban autonomous weapons.
Latin America and the Caribbean must take the lead on this issue: it is up to us to design the future that we want, that we deserve, and to which we are entitled.